

What is claimed is:

1. An image processing apparatus in which an input image information data which is an image information data contained in an input image signal is synthesized with an synthesizing image information data which is an image information data different from the input image information data, the image processing apparatus comprising:

synthesizing image information data holding means for holding a plurality of the synthesizing image information data;

- 10        synthesis control means for controlling synthesis of the input image information data and the plurality of the input synthesizing image information data which are held in the synthesizing image information data holding means, for every arbitrary area of the input image corresponding to the input image information data; and

image information data synthesis means for synthesizing the input image information data and the synthesizing image information data according to the control by means of the synthesis control means.

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2. The image processing apparatus as recited in Claim 1, wherein:

the synthesizing image holding means holds the synthesizing image information data as a data on a pixel-by-pixel basis.

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3. The image processing apparatus as recited in Claim 1, wherein:

the synthesizing image holding means holds information data obtained by arranging the synthesizing image information data in a table.

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4. The image processing apparatus as recited in Claim 1, wherein:

the synthesis control means includes control information data holding means for holding control information data about control of synthesis of the synthesizing image information data and the input image information data, so as to control the synthesis of the synthesizing image information data and the input image information data according to the control information data held in the control information data holding means.

5. The image processing apparatus as recited in Claim 4, wherein:

the control information data is an information data for specifying, in the arbitrary area, the synthesizing image information data corresponding to a synthesizing image to be superimposed on the input image by selecting it from the plurality of synthesizing image information data held in the synthesizing image information data holding means, based on the control information data, the synthesis control means determines whether or not each of the plurality of synthesizing image information data held in the synthesizing image information data holding means is synthesized with the input image information data, such that the synthesizing image information data which has been determined to be synthesized is controlled to be synthesized with the input image information data, and based on the control by means of the synthesis control means, the image information data synthesis means synthesizes the input image information data and the synthesizing image information data so as to superimpose the input image on the

synthesizing image in the arbitrary area.

6. The image processing apparatus as recited in Claim 4, wherein:

5 the control information data is an information data for specifying the synthesizing ratio of each image information data in the arbitrary area, when mixing the input image with the synthesizing image corresponding to the plurality of synthesizing image information data held in the synthesizing  
10 image information data holding means, based on the control information data, the synthesis control means controls the plurality of synthesizing image information data held at the synthesizing image information data holding means so as to be synthesized with the input image information data at the  
15 specified synthesizing ratio, and based on the control by means of the synthesis control means, the image information data synthesis means synthesizes the input image information data and the synthesizing image information data so as to mix the input image and the synthesizing image at the specified  
20 synthesizing ratio in the arbitrary area.

7. The image processing apparatus as recited in Claim 4, wherein:

the synthesis control means further includes, in the  
25 arbitrary area, graphics determination means for determining whether or not graphics exist in the synthesizing image corresponding to the synthesizing image information data synthesized with the input image information data, and when it is determined that there are not graphics by way of the  
30 determination through the graphics determination means, the synthesis control means controls the synthesizing image

information data so as not to be synthesized with the input image information data.

8. The image processing apparatus as recited in Claim 4,  
5 wherein:

an amount of data of the control information data is smaller than an amount of data of the synthesizing image information data held in the synthesizing image information data holding means.

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9. The image processing apparatus as recited in Claim 4, wherein:

the control information data is information data on a pixel-by-pixel basis.

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10. The image processing apparatus as recited in Claim 4, wherein:

the control information data is an information data obtained by arranging transition points where control changes,  
20 in a table.

11. The image processing apparatus as recited in Claim 1, further including:

address information data generation means for generating  
25 the address information data which indicates a location in a screen for the input image, wherein

based on the address information data generated by the address information data generation means, the synthesis control means controls the synthesis of the input image  
30 information data and the plurality of synthesizing image information data held in the synthesizing image information

data holding means such that synthesis locations of the synthesizing image information data and the input image information data may be positioned properly.

- 5 12. The image processing apparatus as recited in Claim 11, further including:

synchronizing signal separation means for separating a synchronizing signal added to the input image information data, wherein

- 10 the address information data generation means generates the address information data, based on the synchronizing signal separated from the input image information data by the synchronizing signal separation means.

- 15 13. An image processing method for an image processing apparatus in which an synthesizing image information data which is an image information data and different from an input image information data is synthesized with the input image information data which is an image information data contained in an input  
20 image signal, the image processing method including the steps of:

an synthesizing image information data hold control step of controlling hold of a plurality of the synthesizing image information data;

- 25 a synthesis control step of controlling synthesis of the input image information data and the plurality of synthesizing image information data which are controlled and held by way of a process of the synthesizing image information data hold control step, for every of an input image corresponding to the  
30 input image information data; and

an image information data synthesis step of synthesizing

the input image information data and the synthesizing image information data, according to the control by way of the process of the synthesis control step.

5 14. The image processing method as recited in Claim 13, wherein:

the synthesizing image hold control step controls and holds the synthesizing image information data as a data on a pixel-by-pixel basis.

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15. The image processing method as recited in Claim 13, wherein:

the synthesizing image hold control step controls and holds information data obtained by arranging the synthesizing  
15 image information data in a table.

16. The image processing method as recited in Claim 13, wherein:

the synthesis control step includes a control information  
20 data hold control step of controlling hold of the control information data about the control of the synthesis of the synthesizing image information data and the input image information data, and

based on the control information data which is controlled  
25 and held by way of the process of the control information data hold control step, the synthesis control step controls the synthesis of the synthesizing image information data and the input image information data.

30 17. The image processing method as recited in Claim 16, wherein:

the synthesis control step determines, in the arbitrary area, whether each of the plurality of synthesizing image information data which are controlled and held by way of the process of the synthesizing image information data hold control  
5 step is synthesized with the input image information data or not, according to the control information data for specifying the synthesizing image information data corresponding to the synthesizing image which is superimposed on the input image, by selecting it from the plurality of synthesizing image  
10 information data which are controlled and held by way of the process of the synthesizing image information data hold control step, the synthesizing image information data which has been determined to be synthesized is controlled so as to be synthesized with the input image information data, and  
15 based on the control by way of the process of the synthesis control step, the image information data synthesis step synthesizes the input image information data and the synthesizing image information data so as to superimpose the input image on the synthesizing image in the arbitrary area.

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18. The image processing method as recited in Claim 16, wherein:

the synthesis control step controls, in the arbitrary area, the plurality of synthesizing image information data which  
25 are controlled and held by way of the process of the synthesizing image information data hold control step so as to be synthesized with the input image information data at the specified synthesizing ratio, according to the control information data for specifying the synthesizing ratio of each image information  
30 data when mixing, with the input image, the synthesizing image corresponding to the plurality of synthesizing image

information data which are controlled and held by way of the process of the synthesizing image information data hold control step, and

based on the control by way of the process of the synthesis control step, the image information data synthesis step synthesizes the input image information data and the synthesizing image information data so as to mix the input image and the synthesizing image at the specified synthesizing ratio in the arbitrary area.

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19. The image processing method as recited in Claim 16, wherein:

the process of the synthesis control step further includes a graphics determination step of determining whether or not graphics exist in the synthesizing image corresponding to the synthesizing image information data which is synthesized with the input image information data in the arbitrary area, and

when it is determined that there are not the graphics through the determination by way of the process of the graphics determination step, the process of the synthesis control step controls the synthesizing image information data so as not to be synthesized with the input image information data.

20. The image processing method as recited in Claim 16, wherein:

the amount of data of the control information data is smaller than the amount of data of the synthesizing image information data which is controlled and held by way of the process of the synthesizing image information data hold control step.



21. The image processing method as recited in Claim 16,  
wherein:

the control information data is information data on a  
pixel-by-pixel basis.

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22. The image processing method as recited in Claim 16,  
wherein:

the control information data is an information data  
obtained by arranging transition points where the control  
10 changes, in a table.

23. The image processing method as recited in Claim 13,  
further including:

an address information data generation step of generating  
15 the address information data which indicates a location in a  
screen for the input image, wherein

based on the address information data generated by way  
of the process of the address information data generation step,  
the synthesis control step controls the synthesis of the input  
20 image information data and the plurality of synthesizing image  
information data which are controlled and held by way of the  
process of the synthesizing image information data hold control  
step, so that the synthesis locations of the synthesizing image  
information data and the input image information data may be  
25 positioned properly.

24. The image processing method as recited in Claim 23,  
further including:

a synchronizing signal separation step of separating a  
30 synchronizing signal added to the input image information data,  
wherein

the address information data generation step generates the address information data, based on the synchronizing signal separated from the input image information data by way of the process of the synchronizing signal separation step.

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25. An imaging apparatus including:

an imaging means for imaging a photographic subject and capturing an taken image information data which is an acquired image information data;

10 an synthesizing image information data holding means for holding a plurality of synthesizing image information data which are synthesized with the taken image information data captured by the imaging means;

15 a synthesis control means for controlling synthesis of the taken image information data and the plurality of synthesizing image information data which are held in the synthesizing image information data holding means, for every arbitrary area of the taken image corresponding to the taken image information data; and

20 an image information data synthesis means for synthesizing the taken image information data and the synthesizing image information data according to control by means of the synthesis control means.